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ABSTRACT

Main characters were portrayed in nontraditional roles in stories presented to 4th, 7th, and 11th grade students. A total of 172 students read a set of four stories, each of which had two versions, one with a male main character and one with a female main character. Thus, the same stories were used to depict traditional and nontraditional sex roles. Students were asked who they thought could do what the main character did in the story. Responses ranged from only boys, mostly boys, same number of each sex, mostly girls, only girls. Students also completed a questionnaire to assess sex role perceptions, evaluated the stories, and were tested for comprehension and recall. Results indicated that exposure to male as well as female main characters engaged in nontraditional activities increased students' perceptions of the number of males and females who can participate in these activities. When students read about a male taking care of a baby, for example, they were most likely to think that males could and should take care of babies. The lack of differences among age groups was not significant. Therefore, the use of gender fair materials can expand knowledge about sex roles without diminishing interest in reading. (KC)

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GENDER FAIR CURRICULAR MATERIALS AND PUPIL LEARNING

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GENDER FAIR CURRICULAR MATERIALS AND PUPIL LEARNING[1]

Educators are concerned about the use of biased instructional materials in classrooms. There is considerable research evidence indicating that materials which are gender biased have a very different impact on pupils than those that are gender fair.

Gender biased materials are those in which females are underrepresented, and both females and males are portrayed primarily in sex stereotypical roles. Gender fair materials include females and males in proportion to reality and portray both females and males in nonstereotypical, nontraditional roles.

Gender biased materials convey an inaccurate picture of reality, reinforce limitations for appropriate role behaviors and are often not appealing to children. If we want pupils to develop as individuals, it is important that they receive instruction which will support their making educational and career choices based on their own interests and talents rather than on preconceived notions of what is "right" for females and males.

In a recent review of the literature, my colleague Candace Schau and I examined over 40 studies on the effects of gender biased and gender fair materials on pupils' attitudes, interest, and learning (Scott and Schau, in press). We found that for both girls and boys, gender fair materials produced fewer sex-typed responses than gender biased materials regarding occupations, roles and personality traits (See Barclay, 1974; Berg-Cross and Berg-Cross, 1978; Flerx, Fidler and Rogers, 1976; Greene, Beyard-Tyler, and Sullivan, 1981; Hurwitz and White, 1977; Lutes-Dunckley, 1978; Schau, 1978; Scott and Feldman-Summers, 1979). For example, in a previous study, I found that children who

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read social studies materials about girls in nontraditional roles were more likely to think that girls could perform the nontraditional acitivity of the story than children who read the same materials with boys in traditional roles (Scott and Feldman-Summers, 1979).

A second, relevant gender-related characteristic of instructional materials is their appeal to pupils. Interest in materials influences the extent to which pupils are motivated to learn from them. For both print and non-print materials, we found those featuring nontraditional roles were not rejected by pupils and in some cases were preferred over those with sex-typed characters (Scott and Schau, in press). Of particular interest are findings which indicate that pupils, especially girls, show a preference for a same-sex main character, regardless of role behavior, and that boys often show a preference for stories with traditional male content, regardless of the sex of the characters (Klein, 1970, 1979; Jaudon and Halverson, in press).

A third variable relevant to pupils' learning is the amount of comprehension and recall of instructional materials. Research on gender biased and gender fair materials for this dimension is inconclusive. Some studies report the superiority of traditional role content for pupil recall (Klein, 1970; Koblinsky, Cruse, and Sugawara, 1978; McArthur and Eisen, 1976). Other studies report the superiority of gender fair nontraditional role content (Frasher and Frasher, 1978; Jennings, 1975) or no differences (Jaudon-Kropp and Halverson, in press).

Despite the number of studies that have examined gender-related characteristics of instructional materials on pupil attitudes, interest, and learning, there are a number of unanswered questions and a need for further investigation (see Scott and Schau, in press). Four of these gaps are examined in the present study. First, most of the studies have examined children's learning, and few have looked at adolescents' and adults' responses. We need

to know if the findings apply to all ages and what developmental trends may exist. It is possible that certain ages may be more receptive or resistant to gender fair materials than other ages.

Second, of the studies measuring attitudinal responses, twice as many look at females in nontraditional roles than males. To date, the effects of stereotyping on males and intervention strategies to expand their role options have had less attention in the research literature and in the development of instructional approaches than similar concerns about females (For an inclusive study, see Tibbetts, 1977). And there is considerably more resistance to the notion of nontraditional roles for males than for females (Scott, 1982). For example, in a study of recent reading texts, I found many females portrayed in nontraditional roles but few males (Scott, 1981). We need to know the extent to which portrayals of males in nontraditional roles will expand pupils' attitudes, be of sufficient interest to motivate learning, and promote achievement.

It is interesting to note that most studies have found few sex differences in response to gender biased versus gender fair materials. However, how pupils' existing attitudes about sex role behaviors influence their responses has seldom been examined. While there are numerous studies reporting children's sex role attitudes in general, with boys generally more sex-typed than girls, only one study reported the relationship between sex role attitudes and recall, of interest to the present study. Liben and Signorella (1980) found that highly stereotyped children had more difficulty remembering pictures showing nontraditional sex role behavior than children with less stereotypical attitudes. A similar relationship between the extent of sex role stereotyping and responses to instructional materials is one, so far, unexamined.

Finally, results are inconclusive regarding the effects of gender-

related characteristics on pupils' comprehension. As noted previously, the direction of difference, if any, has varied widely, and few studies exist.

The present study was designed to address the four questions outlined above. Its purpose was to ascertain (1) the impact of male main characters in nontraditional roles on students' sex role perceptions and story evaluations, (2) the impact of nontraditional main characters on reading comprehension, and (3) the effect of the age of students in (1) and (2) above, and (4) the mediating effect of pupils' role attitudes in (1), (2), (3) above. If it is found that the portrayal of nonstereotyped, nontraditional main characters can improve pupils' perceptions at several age levels with no decrease in their comprehension or interest in the reading material, then an important avenue for social change will have been further delineated, i.e., reducing sexism. Results reported here, however, include only two types of analyses, one for age of pupils and one for the effect of role portrayal in materials with a focus on nontraditional male roles. Correlations with attitudes and differences in comprehension, if any, will be reported at a future date.

METHOD

Participants

All pupils in the study attended a university research school in Tallahassee, Florida. They were selected for the school to reflect the socioeconomic and racial makeup (80% nonblack and 20% black) of the state of Florida, an equal proportion of females and males, and a statistically normal curve of academic ability at each grade level. Three grades were selected for comparison, with 52 pupils at the fourth grade, 60 pupils at the seventh grade, and 60 at the eleventh grade participating. The pupils participated in the study as part of their regularly scheduled classes with both their teachers and a

male graduate student administering the treatment materials.

Treatment Materials

All pupils read a set of four stories, each featuring a main character depicting one of four sex role dimensions: traditional female, nontraditional female, traditional male, nontraditional male.[2] Each story had two versions, one with a female main character and one with a male main character, such that the same stories were used for the traditional female/nontraditional male condition and the traditional male/nontraditional female condition. Eleven stories were excerpted from reading and social studies materials for use in the study. Four were selected for each grade level according to reading level and interest level. A team of reviewers evaluated each story on its interest to pupils and sex role depiction. There was a high level of agreement among the reviewers for each story used. The stories were counterbalanced and randomly assigned to each participant.

Dependent Measures

Sex role perceptions. There were two measures of sex role perceptions. First, the pupils were asked the following question after reading each story: Who do you think can do what the main character did in the story? This question was followed by five possible responses, as follows: (1) only boys; (2) mostly boys, some girls; (3) the same number of boys and girls; (4) mostly girls, some boys; and (5) only girls. The scores ranged from 1 to 5, with the higher number indicating the greater proportion of girls who could engage in the activity. Second, at the conclusion of the study, participants completed a 29-item questionnaire to assess sex role perceptions.[3] Each item consisted of a statement which was either traditional in its role orientation (e.g., "Boys don't like

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2. Samples of story materials are available upon request from the author.

3. The sex role perceptions inventory was developed by LaRae Glennon and staff for Project Equality, Highline School District, Seattle, Washington, in 1974, and is available from the author.

girls who are smarter than they are" or nontraditional (e.g., "It's okay for father to do the cooking"). Participants could respond to each statement with true, false, or don't know. Questionnaire scores were obtained by summing each participant's nontraditional responses, where a nontraditional response is defined as agreement (true) with a nontraditional statement or disagreement (false) with a traditional statement. Scores could therefore range from 0 to 29.

Story evaluations. The participants were asked to complete two evaluative questions for each story. Each question was followed by a 7-point, equal interval, bipolar scale. The higher the number scored, the more positive the evaluation. The two questions were as follows: How good do you think the story is? How much did you like the story?

Comprehension. For each story, pupils responded to five multiple choice questions which measured their recall and understanding of the story.

RESULTS

A 2(sex of participant) X 3(grade level) X 4(sex role) analysis of variance conducted for three dependent measures is reported in this paper.

Sex Role Perceptions

An analysis of responses to the question of "Who can do what the main character did" yielded two main effects. First, female pupils ($M = 3.13$) were more likely than males ($M = 3.25$) to think that both girls and boys could perform the activities of the main characters, $F(1, 591) = 30.01$, $p < .02$. Second, pupils responded to the question differently according to the role behavior portrayed in the story, $F(3, 597) = 56.93$, $p < .001$. Those reading the story with the traditionally female character were more likely to think mostly females could do the activity while those with the

traditional male st ry gave the highest proportion of mostly boys responses. The nontraditional stories elicited the most sex inclusive responses (see Table 1). There were no effects for grade or interactions.

For responses to the question "Who should do what the main character did," there was a main effect for role condition only, F (3, 590) = 44.93, $p < .001$. Similar to the "Who can" results, traditional female stories elicited the most female responses, traditional male the most male responses, and nontraditional stories the most gender balanced responses (see Table 1).

Story evaluations. Analyses of responses to the question "How much did you like the story" yielded a main effect for grade and sex of participant and an interaction between sex and role. Girls (M = 2.29) liked the stories more than boys (M = 2.45), F (1, 596) = 3.96, $p < .05$. Fourth grade pupils (M = 1.95) liked their stories better than seventh graders (M = 2.52) and eleventh graders (M = 2.64), F(2, 596) = 15.27, $p < .001$.

The interaction effect indicated that girls had a preference for the stories featuring traditional females (M = 1.91) and nontraditional males (M = 2.14) over those with nontraditional females (M = 2.54) and traditional males (M = 2.59), F (1, 596) = 3.84, $p < .01$. Boys showed no preferences among the four role conditions.

DISCUSSION

This study yields several findings of particular interest. First, exposure to male as well as female main characters engaged in nontraditional role activities increased pupils' perceptions of the number of males or females who can and should participate in these activities. Second, although females generally liked the stories better than males and liked the stories with traditional female content better than those with traditional male content, males did not show a preference among story conditions. Third,

while older pupils evaluated the stories less positively than the younger children, there were no other differences by age in the study. Each of the findings is discussed below.

Consistent with previous findings (e.g., Scott and Feldman-Summers, 1979), both boys' and girls' responses were affected by a single story featuring a character in nontraditional or traditional sex role activities. When pupils read about an activity that was traditionally male, for example sky diving, they were more likely to think that females can and should engage in the activity if the story featured a female main character. When pupils read about an activity that is traditionally female, for example taking care of a baby, they were more likely to think that males can and should take care of babies if the story had a male main character. The acceptance of nontraditional male activities is particularly noteworthy since stereotyped attitudes about males have been more pervasive and resistant to change (Tibbetts, 1977; Scott, 1981). However, it is not known how long the pupils retained these perceptions of nontraditional role activities.

Pupils' evaluations of these stories indicate different responses for females and males. In contrast to previous studies in which they preferred same-sex main characters, females showed a preference for the stories with traditional female activities, for both female and male main characters. Males in the study liked all stories about equally well, although less well than the girls overall. It is evident, therefore, that stories about males in nontraditional roles were well-received by both sexes. This is an important finding for educators and publishers of instructional materials who may fear that pupils would not be interested in reading about these activities. In addition, the use of high quality stories, as were those selected for this study, may contribute to their appeal for all pupils.

A third finding of note concerns the lack of differences among age groups. It was anticipated that seventh and eleventh grade pupils may have different sex role perceptions due to shifting sex role perceptions at adolescence. Although they rated the stories less favorably than fourth graders, this may be due to their lower interest in participating in the research or differences in the stories themselves. It is clearly evident that adolescents' sex role attitudes about who should engage in activities and knowledge about who can perform gender-related activities are affected by a single story featuring a traditional or nontraditional role.

As a result of the findings of this study, educators and publishers of instructional materials can expect significant differences with the use of gender fair materials. For fourth graders and above, pupils' knowledge about sex roles will be expanded, their judgments about appropriateness show more flexibility, and their interest in reading will not be diminished. Of special significance is the potential for males as well as females to be depicted in a variety of role behaviors and the resulting changes in attitudes. These findings have broad implications for social studies educators who have the responsibility to teach accurate knowledge about society and to develop future citizens who will be fair-minded, make the most of their individual potential, and not be limited by gender biases.

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Table 1

Mean "Who can do" and "Who should do" scores for four role conditions.

	Trad. Female	Nontrad. Male	Nontrad. Female	Trad. Male
"Who Can"	2.70	3.15	3.24	3.70
"Who Should"	2.71	3.03	3.32	3.59

Note: 2.0 = mostly females, some males
3.0 = same number of males and females
4.0 = mostly males, some females